ABSTRACT

A compound represented by the formula:

$$R^3$$
 X
 R^4
 R^7
 R^1
 R^8
 R^8

wherein R¹ is a 5- or 6-membered ring; R³ is a hydrogen atom, a lower alkyl group or a lower alkoxy group; R7 and R8 are each a hydrogen atom or a lower alkyl group; Z1 is another 5- or 6-membered aromatic ring; Z2 is a group represented by $-Z^{2a}-W^1-Z^{2b}-$ [wherein Z^{2a} and Z^{2b} are each 0, S(0)_m (wherein m is 0, 1 or 2), an imino group or a bond, and W^1 is an alkylene chain]; X is CR (wherein R is a hydrogen atom, a lower alkyl group, a lower alkoxy group, an acyl group, or R 10 and adjacent R⁴ may form a 5- or 6-membered alicyclic heterocyclic group) or N; R4 is NR5R6 (wherein R5 and R6 are each a hydrogen atom, a hydrocarbon group, a heterocyclic group or an acyl group), or R5 and R6 are bonded to each other to form a heterocyclic group of NR^5R^6 ; and R^2 is (1) an 15 amino group which may be a quaternary ammonium or oxide, (2) a nitrogen-containing heterocyclic group which may contain a sulfur atom or an oxygen atom as the ring-constituting atom, in which the nitrogen atom may be converted to a quaternary 20 ammonium or an oxide, or the like;

or a salt thereof.

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The compound has excellent CCR5 antagonistic activity and thus is useful as a prophylactic and/or therapeutic medicine for HIV infection into human peripheral blood monocyte, especially for AIDS.